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FIGURE 1A: SEQ ID NO 1 (DG747)

1 GAATTCCTATA TGCACGATTA CATATATGAT GATCGTATCT ACAATAATGA TAAAGAGAAA
61 AATGTTATAA AAAGTGATAA TAAAAATGTT ATAAAAAGTG ATAATAAAAA TGATTATAAA
121 AAGTGTAAATA AAAATGTTAT AAAAAGTGAT AATAAAAAATG TTATAAAAAG TGATAATAAA
181 AATGTGGAAT TC

FIGURE 1B: SEQ ID NO 2 (DG772)

1 GAATTCCCAG ATCCTCGAAG TAATGACCAA GAAGATGCTA CTGACGATGT TGTAGAAAAT
61 AGTAGAGATG ATAATAATAG TCTCTCTAAT AGCGTAGATA ATCAAAGTAA TGTTTTAAAT
121 AGAGAAGATC CTATTGCTTC TGAAACTGAA GTTGTAAGTG AACCTGAGGA TTCAAGTAGG
181 ATAATGACTA CAGAAGTTCC AAGTACTACT GTAAAACCCC CTGATGAAAA ACGATCTGAA
241 GAAGTAGGAG AAAAAGAAGC TAAAGAAATT AAAGTAGAAC CTGTTGTACC AAGAGCCATT
301 GGAGAACCAA TGGAAAATTC TGTGAGCGTA CAGTCCCCTC CTAAGGAATT C

FIGURE 1C: SEQ ID NO 3 (DG747)

1 EFHMHDIYD DRIYNNDEK NVIKSDNKNV IKSDNKNNDYK KCNKNVIKSD NKNVIKSDNK
61 NVEF

FIGURE 1D: SEQ ID NO 4 (DG772)

1 EFPDPRSNDQ EDATDDVVEN SRDDNNSLSN SVDNQSNVLN REDPIASETE VVSEPEDSSR
61 IMTTEVPSTT VKPPDEKRSE EVGEKEAKEI KVEPVVPRAI GEPMENSVSQ QSPPEF

FIGURE 1E: SEQ ID NOs 5-8:

SEQ ID NO 5: DNKNV

SEQ ID NO 6: DNKND

SEQ ID NO 7: DKEKNV

SEQ ID NO 8: KSDNKNV

FIGURE 2A:

[illegible]

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FIGURE 2A(continued)

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430 440 450 460
AAAAGTGATAATAAAAATGTTATAAAAAGTGATTATAAAAAGTGATGAT
S D N K N V I K S D Y K S D D
V I I K M L . K V I I K V M I
. . . K C Y K K . L . K . . .

470 480 490 500 510 520 530 540
AGAAATGCTTGTGATATTTATAAAAAGTAATAAAAAAATGTTCTTGATAATTGCCATATATATGATGATAATAGTTCA
R N A C D I Y K S N K K N V P D N C H I Y D D N S S
E M L V I F I K V I K K M F L I A I Y M M I I V Q
K C L . Y L . K . . K K C S . . L P Y I F S

550 560 570 580 590 600 610 620
GTTGAAAATTTAGATGGAAAAAATAAATTAAATAATATAAGGAACATACATAATGATAACTCATCTTCATGCCGATATA
V E N L D G K N K L N N I R N I H N D N S S S C D I
L K I . M E K I N . I I . G T Y I M I T H L H A I Y
. K F R W K K . I K . Y K E H T . . . L I F M R Y I

630 640 650 660 670 680 690 700
TCCGATATAAAAAGTGAAGATGAATATATAGAACCATATGAAAAAAGAATGAAGAAAATATAAATGAATATAAGAAAT
S D I K S E D E Y I E P Y E K K N E E N I N E Y K N
P I . K V K M N I . N H M K K R M K K I . M N I R I
R Y K K . R . I Y R T I . K K E . R K Y K . I . E .

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FIGURE 2A(continued)

710 720 730 740 750 760 770 780
| | | | | | | |
AAGAAAAATATAGCCAATGAAATATAAAGAAGGAAGAGTTCAATTTATAATGATGAACATAATTATAATTCATTA
K K N I A N E N I K E G K S S I Y N D E H N Y N S L
R K I . P M K I . K K E R V Q F I M M N I I I I H Y
E K Y S Q . K Y K R R K E F N L . . . T . L . F I I

790 800 810 820 830 840 850
| | | | | | | |
TTATATAATTCTTGTAATGGTGAATAAGTAAGATCAACAAAATAAGTAGTCATAATAATATTGATAATAATATGGAT
L Y N S C N G E I S K I N K I S S H N N I D N N M D
Y I I L V M V K . V R S T K . V V I I I L I I I W I
I . F L . W . N K . D Q Q N K . S . . Y . . . Y G .

860 870 880 890 900 910 920 930
| | | | | | | |
AATTATAATACGTTTGCAATGTGAATAATTTTATAATATATTCTCAGATGATGAAGATAATATATCAAATTATTAT
N Y N T F A N V N N F I I Y S S D D E D N I S N Y Y
I I I R L Q M . I I L . Y I P Q M M K I I Y Q I T I
L . Y V C K C E . F Y N I F L R . . R . Y I K L L .

940 950 960 970 980 990 1000 1010
| | | | | | | |
AATGGTAAAGACGTATTAAATGATGAGATTATGTTCCCTATAAAATTTAATTTGAAAAATTAAAAAAAATATTTAT
N G K D V L N D E I M F P I K F N F E K L K K N I Y
M V K T Y . M M R L C S L . N L I L K N . K K I F M
W . R R I K . . D Y V P Y K I . F . K I K K K Y L C

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FIGURE 2A(continued)

1020 1030 1040 1050 1060 1070 1080 1090
| | | | | | | |
GTAATAGAGCATATAGACAAATATATTATGATACATTTTAAATAAAATCCAAGTGAAAAAGTGTTTTATGAAT
V I E H I D K I Y Y D T F L N K N P S E K S V F M N
• • S I • T K Y I M I H F • I K I Q V K K V F L • M
N R A Y R Q N I L • Y I F K • K S K • K K C F Y E •

1100 1110 1120 1130 1140 1150 1160 1170
| | | | | | | |
GATGAATCTACTGGTTATTGAAAAATGATGTGAATGACAAATGTGTTGTTGATAATATAAATGTTATTAACTCTCT
D E S T G Y L K N D V N D K C V V D N I N V I N P S
M N L L V I • K M M • M T N V L L I I • M L L I L L
• I Y W L F E K • C E • Q M C C • • Y K C Y • S F •

1180 1190 1200 1210 1220 1230 1240
| | | | | | | |
AGTGTGAATACGTTGAGTAATATTTCAAATATTAGGAATGAAAAATAGAAAATAATAAAGAATGAAAAATTATA
S V N T L S N I S N I R N E K I E N N N K N E K L I
V • I R • V I F Q I L G M K K • K I I I R M K N • •
C E Y V E • Y F K Y • E • K N R K • • • E • K I N K

1250 1260 1270 1280 1290 1300 1310 1320
| | | | | | | |
AAATCATATCCTACACAATCAAAAAATGTTATGAGTACATTTTCTTTTGGAAATATTGAAAAGGAGACATTTATAACA
K S Y P T Q S K N V M S T F S F W N I E K E T F I T
N H I L H N Q K M L • V H F P F G I L K R R H L • Q
I I S Y T I K K C Y E Y I F L L E Y • K G D I Y N K

1330 1340 1350 1360 1370 1380 1390 1400
| | | | | | | |
AAACCTTTGTATGCACAAATTTGACAAAAAACAATTTAGTTTATTAGATGAATCTGAAGAGATGATAAGAAATTAT
K P L Y A Q N L R K K Q F S L L D E S E E M I R N Y
N L C M H K I • E K N N L V Y • M N L K R • • E I I
T F V C T K F E K K T I • F I R • I • R D D K K L F

FIGURE 2A(continued)

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1410 1420 1430 1440 1450 1460 1470 1480
| | | | | | | |
TCATCTAATCAATATTCTATAAAATTTGTACCAAGACATTATTATATGTAATGAGTCAAGTTGCTTCTCGATCCTTT
S S N Q Y S I K F V P R H L L Y V M S Q V A S R S F
H L I N I L . N L Y Q D I Y Y M . . V K L L L D P F
I . S I F Y K I C T K T F I I C N E S S C F S I L F

1490 1500 1510 1520
| | | |
TTTGATCCTTTATATAGAAAGCAGTTATTTTTTCGTTACTAA
F D P L Y R K Q L F F R Y .
L I L Y I E S S Y F F V T
. S F I . K A V I F S L L

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Figure 2B:

10 20 30 40 50 60 70
| | | | | | |
ATGAAAGGGAAAATGAATATGTGTTTGTCTTTCTATTCTATATTATATGTTGTATTATGTACCTATGTATTAGGT
M K G K M N M C L F F F Y S I L Y V V L C T Y V L G
• K G K • I C V C F F S I L Y Y M L Y Y V P M Y • V
E R E N E Y V F V F F L F Y I I C C I M Y L C I R Y

80 90 100 110 120 130 140 150
| | | | | | |
ATAAGTGAAGAGTATTTGAAGGAAAGGCCCAAGGTTTAAATGTTGAGACTAATAATAATAATAATAATAATAAT
I S E E Y L K E R P Q G L N V E T N N N N N N N N N
• V K S I • R K G P K V • M L R L I I I I I I I I I
K • R V F E G K A P R F K C • D • • • • •

160 170 180 190 200 210 220 230
| | | | | | |
AATAATAGTAATAGTAACGATGCGATGTCTTTGTAAATGAAGTAATAAGGTTTATAGAAAACGAGAAGGATGATAAA
N N S N S N D A M S F V N E V I R F I E N E K D D K
I I V I V T M R C L L • M K • • G L • K T R R M J K
• • • • • R C D V F C K • S N K V Y R K R E G • • R

240 250 260 270 280 290 300 310
| | | | | | |
GAAGATAAAAAAGTGAAGATAATATCTAGACCTGTTGAGAATACATTACATAGATATCCAGTTAGTTCTTTTCTGAAT
E D K K V K I I S R P V E N T L H R Y P V S S F L N
K I K K • R • Y L D L L R I H Y I D I Q L V L F • I
R • K S E D N I • T C • E Y I T • I S S • F F S E Y

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FIGURE 2B (continued)

320 330 340 350 360 370 380 390
| | | | | | | |
ATCAAAAAGTATGGTAGGAAAGGGGAATATTTGAATAGAAATAGTTTTGTTCAAAGATCATATATAAGGGGTTGTAAA
I K K Y G R K G E Y L N R N S F V Q R S Y I R G C K
S K S M V G K G N I . I E I V L F K D H I . G V V K
Q K V W . E R G I F E . K . F C S K I I Y K G L . R

400 410 420 430 440 450 460
| | | | | | | |
GGAAAAAGAAGCACACATACATGGATATGTGAAAAATAAGGGAATAATAATATATGTATTCCTGATAGACGTGTACAA
G K R S T H T W I C E N K G N N N I C I P D R R V Q
E K E A H I H G Y V K I K G I I I Y V F L I D V Y N
K K K H T Y M D M . K . R E . . Y M Y S . . T C T I

470 480 490 500 510 520 530 540
| | | | | | | |
TTATGTATAACAGCTCTTCAAGATTTAAAAAATTCAGGATCTGAAACGACTGATAGAAAATTATTAAAGAGATAAAGTA
L C I T A L Q D L K N S G S E T T D R K L L R D K V
Y V . Q L F K I . K I Q D L K R L I E N Y . E I K Y
M Y N S S S R F K K F R I . N D . . K I I K R . S I

550 560 570 580 590 600 610 620
| | | | | | | |
TTTGATTGAGCTATGTATGAACTGATTTGTTATGGAATAAATATGGTTTTTCGTGGATTGATGATTTTGTGACGAT
F D S A M Y E T D L L W N K Y G F R G F D D F C D D
L I Q L C M K L I C Y G I N M V F V D L M I F V T M
. F S Y V . N . F V M E . I W F S W I . . F L . R C

630 640 650 660 670 680 690 700
| | | | | | | |
GTAAAAAATAGTTATTTAGATTATAAAGATGTTATATTTGGAACCGATTAGATAAAAAATAATATATCAAAGTTAGTA
V K N S Y L D Y K D V I F G T D L D K N N I S K L V
. K I V I . I I K M L Y L E P I . I K I I Y Q S . .
K K . L F R L . R C Y I W N R F R . K . Y I K V S R

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FIGURE 2B (continued)

710 720 730 740 750 760 770 780
| | | | | | | |
GAGGAATCATTAAACGTTTTTTTAAAAAAGATAGTAGTGTACTTAATCCTACTGCTTGGTGGAGAAGGTATGGAACA
E E S L K R F F K K D S S V L N P T A W W R R Y G T
R N H . N V F L K K I V V Y L I L L L G G E G M E Q
G I I K T F F . K R . . C T . S Y C L V E K V W N K

790 800 810 820 830 840 850
| | | | | | | |
AGACTATGGAAACTATGATACAGCCATATGCTCATTTAGGATGTAGAAAACCTGATGAGAATGAACCTCAGATAAAT
R L W K T M I Q P Y A H L G C R K P D E N E P Q I N
D Y G K L . Y S H M L I . D V E N L M R M N L R . I
T M E N Y D T A I C S F R M . K T . . E . T S D K .

860 870 880 890 900 910 920 930
| | | | | | | |
AGATGGATTCTGGAATGGGGGAAATATAATTGTAGATTAAATGAAGGAGAAAGAAAAATTGTTAACAGGAGAATGTTCT
R W I L E W G K Y N C R L M K E K E K L L T G E C S
D G F W N G G N I I V D . . R R K K N C . Q E N V L
M D S G M G E I . L . I N E G E R K I V N R R M F C

940 950 960 970 980 990 1000 1010
| | | | | | | |
GTTAATAGAAAAAATCTGACTGCTCAACCGGATGTAATAATGAGTGTATACCTATAGGAGTCTTATTAATAGACAA
V N R K K S D C S T G C N N E C Y T Y R S L I N R Q
L I E K N L T A Q P D V I M S V I P I G V L L I D K
. . K K I . L L N R M . . . V L Y L . E S Y . . T K

1020 1030 1040 1050 1060 1070 1080 1090
| | | | | | | |
AGATATGAGGTCTCTATATTAGGAAAAAATATATTAAAGTAGTACGATATACTATATTTAGGAGAAAAATAGTTCAA
R Y E V S I L G K K Y I K V V R Y T I F R R K I V Q
D M R S L Y . E K N I L K . Y D I L Y L G E K . F N
I . G L Y I R K K I Y . S S T I Y Y I . E K N S S T

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FIGURE 2B (continued)

1100 1110 1120 1130 1140 1150 1160 1170
CCTGATAATGCTTTGGATTTTTTAAATTAAATTGTTCTGAGTGTAAAGGATATTGATTTTAAACCCCTTTTGAATTT
P D N A L D F L K L N C S E C K D I D F K P F F E F
L M L W I F . N . I V L S V R I L I L N P F L N L
. . C F G F F K I K L F . V . G Y . F . T L F . I .

1180 1190 1200 1210 1220 1230 1240
GAATATGGTAAATATGAAGAAAAA1GTATGTGTCAATCATATATTGATTTAAAAATCCAATTTAAAAATAATGATATT
E Y G K Y E E K C M C Q S Y I D L K I Q F K N N D I
N M V N M K K N V C V N H I L I . K S N L K I M I F
I W . I . R K M Y V S I I Y . F K N P I . K . . Y L

1250 1260 1270 1280 1290 1300 1310 1320
TGTTCAATTTAATGCTCAAAACAGATACTGTTTCTAGCGATAAAAGATTTTGTCTTGAAAAGAAAGAATTTAAACCATGG
C S F N A Q T D T V S S D K R F C L E K K E F K P W
V H L M L K Q I L F L A I K D F V L K R K N L N H G
F I . C S N R Y C F . R . K I L S . K E R I . T M E

1330 1340 1350 1360 1370 1380 1390 1400
AAATGTGATAAAAATTCTTTTGAACAGTTTCATCATAAAGGTGTATGTGTGCACCGAGAAGACAAGGTTTTTGTTTA
K C D K N S F E T V H H K G V C V S P R R Q G F C L
N V I K I L L K Q F I I K V Y V C H R E D K V F V .
M . . K F F . N S S S . R C M C V T E K T R F L F R

1410 1420 1430 1440 1450 1460 1470 1480
GGAAATTTGAACATCTACTGAATGATGATATTTATAATGTACATAATTCACAACTACTTATCGAAATTATAATGGCT
G N L N Y L L N D D I Y N V H N S Q L L I E I I M A
E I . T I Y . M M I F I M Y I I H N Y L S K L . W L
K F E L S T E . . Y L . C T . F T T T Y R N Y N G F

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FIGURE 2B (continued)

1490 1500 1510 1520 1530 1540 1550 1560
| | | | | | |
TCTAACAAGAAGGAAAGTTATTATGGAABAAACATGGAACAATCTTGATAACCAGAATGCATGCAATATATAAAT
S K Q E G K L L W K K H G T I L D N Q N A C K Y I N
L N K K E S Y Y G K N M E Q Y L I T R M H A N I . M
. T R R K V I M E K T W N N T . . P E C M Q I Y K .

1570 1580 1590 1600 1610 1620 1630
| | | | | | |
GATAGTTATGTTGATTATAAAGATATAGTTATTGGAATGATTATGGAATGATAACAACCTCTATAAAAGTTCAAAT
D S Y V D Y K D I V I G N D L W N D N N S I K V Q N
I V M L I I K I . L L E M I Y G M I T T L . K F K I
. L C . L . R Y S Y W K . F M E . . Q L Y K S S K .

1640 1650 1660 1670 1680 1690 1700 1710
| | | | | | |
AATTTAAATTTAATTTTGAAGAAATTTTGGTTATAGTTGGAAGAAATAAACTCTTTAAACAATTAAGAATTA
N L N L I F E R N F G Y K V G R N K L F K T I K E L
I . I . F L K E I L V I K L E E I N S L K O L K N .
F K F N F . K K F W L . S W K K . T L . N N . R I K

1720 1730 1740 1750 1760 1770 1780 1790
| | | | | | |
AAAAATGTATGGTGGATATTAATAGAAATAAAGTATGGGAATCAATGAGATGTGGAATTGACGAAGTAGATCAACGT
K N V W W I L N R N K V W E S M R C G I D E V D Q R
K M Y G G Y . I E I K Y G N Q . D V E L T K . I N V
K C M V D I K . K . S M G I N E M W N . R S R S T .

1800 1810 1820 1830 1840 1850 1860 1870
| | | | | | |
AGAAAACTTGTGAAGAATAGATGAAGTAAAGCATGCCACAATCTTTAGATGGTTTCACAATGGGCACATTC
R K T C E R I D E L E N M P O F F R W F S Q W A R F
E K L V K E . M N . K T C H N S L D G F H N G H I S
K N L . K N R . T R K H A T I L . M V F T M G T F L

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FIGURE 2B (continued)

1880 1890 1900 1910 1920 1930 1940 1950
| | | | | | | |
TTTTGTAAGGAAAAAGAATATTGGGAATTAAAATTAAATGATAAATGTACAGGTAATAATGGAAAATCCTTATGTCAG
F C K E K E Y W E L K L N D K C T G N N G K S L C Q
F V R K K N I G N . N . M I N V Q V I M E N P Y V R
L . G K R I L G I K I K . . M Y R . . W K I L M S G

1960 1970 1980 1990 2000 2010 2020
| | | | | | | |
GATAAAACATGTCAAATGTGTGTACTAATATGAATTATTGGACATATACTAGAAAATTAGCTTATGAATACAAATCC
D K T C Q N V C T N M N Y W T Y T R K L A Y E I Q S
I K H V K M C V L I . I I G H I L E N . L M K Y N P
. N M S K C V Y . Y E L L D I Y . K I S L . N T I R

2030 2040 2050 2060 2070 2080 2090 2100
| | | | | | | |
GTAAATATGATAAAGATAGAAAATTATTTAGTCTTGCTAAAGACAAAATGTAACACTACATTTTAAAGGAAAATGCA
V K Y D K D R K L F S L A K D K N V T T F L K E N A
. N M I K I E N Y L V L L K T K M . L H F . R K N Q
K I . . R . K I I . S C . R Q K C N Y I F K G K C K

2110 2120 2130 2140 2150 2160 2170 2180
| | | | | | | |
AAAAATTGTTCTAATATAGATTTTACAAAATATTGATCAGCTTGACAAACTCTTTAAGGAAAGATGTTTCATGTATG
K N C S N I D F T K I F D Q L D K L F K E R C S C M
K I V L I . I L Q K Y S I S L T N S L R K D V H V W
K L F . Y R F Y K N I R S A . Q T L . G K M F M Y G

2190 2200 2210 2220 2230 2240 2250 2260
| | | | | | | |
GATACACAAGTTTTAGAAGTAAAAAACAAGAAATGTTATCTATAGACTCAAATAGTGAAGATGCGACAGATATAAGT
D T Q V L E V K N K E M L S I D S N S E D A T D I S
I H K F . K . K T K K C Y L . T Q I V K M R Q I . V
Y T S F R S K K Q R N V I Y R L K . . R C D R Y K .

FIGURE 2B (continued)

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2270 2280 2290 2300 2310 2320 2330 2340
GAGAAAAATGGAGAGGAAGAATTATATGTAAATCACAATTCTGTGAGTGTGCGCAAGTGGTAATAAAGAAATCGAAAAG
E K N G E E E L Y V N H N S V S V A S G N K E I E K
R K M E R K N Y M . I T I L . V S Q V V I K K S K R
E K W R G R I I C K S Q F C E C R K W . . R N R K E

2350 2360 2370 2380 2390 2400 2410
AGTAAGGATGAAAAGCAACCTGAAAAGAGCAAAACAACTAATGGAACTTAACCGTACGAACTGACAAAGATTCA
S K D E K Q P E K E A K Q T N G T L T V R T D K D S
V R M K S N L K K K Q N K L M E L . P Y E L T K I Q
. G . K A T . K R S K T N . W N F N R T N . Q R F R

2420 2430 2440 2450 2460 2470 2480 2490
GATAGAAACAAAGGAAAAGATACAGCTACTGATACRAAAATTCACCTGAAAATTTAAAAGTACAGGAACATGGAACA
D R N K G K D T A T D T K N S P E N L K V Q E H G T
I E T K E K I Q L L I Q K I H L K I . K Y R N M E Q
. K Q R K R Y S Y . Y K K F T . K F K S T G T W N K

2500 2510 2520 2530 2540 2550 2560 2570
AATGGAGAAACAATAAAGAAGAACCACCAAAATTACCTGAATCATCTGAAACATTACAATCACAAGAACAATTAGAA
N G E T I K E E P P K L P E S S E T L Q S Q E Q L E
M E K Q . K K N H Q N Y L N H L K H Y N H K N N . K
W R N N K R R T T K I T . I I . N I T I T R T I R S

2580 2590 2600 2610 2620 2630 2640 2650
GCAGAAGCACAAAAACAAAAACAAGAAGAAGCAAAAAAACAAGAAGAAGCAAAAAAACAAGAAGAA
A E A Q K Q K Q E E E P K K K Q E E E P K K K Q E E
Q K H K N K N K K K N Q K K N K K K N Q K K N K K K
R S T K T K T R R R T K K K T R R R T K K K T R R R

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FIGURE 2B (continued)

2660 2670 2680 2690 2700 2710 2720 2730
| | | | | | | |
GAACAAAACGAGAACAAGAACAAACAAGAACAAGAAGAAGACAAAACAAGAAGAAGAACAAATACAA
E Q K R E Q E Q K Q E Q E E E E Q K Q E E E Q Q I Q
N K N E N K N K N K N K K K N K N K K K N N K Y K
T K T R T R T K T R T R R R R T K T R R R T T N T R

2740 2750 2760 2770 2780 2790 2800
| | | | | | | |
GATCAATCACAAGTGGATTAGATCAATCCTCAAAAGTAGGAGTAGCGAGTGAACAAATGAAATTTCTTCAGGACAA
D Q S Q S G L D Q S S K V G V A S E Q N E I S S G Q
I N H K V D . I N P Q K . E . R V N K M K F L Q D K
S I T K W I R S I L K S R S S E . T K . N F F R T R

2810 2820 2830 2840 2850 2860 2870 2880
| | | | | | | |
GAACAAAACGTAAAAAGCTCTTCACCTGAAGTAGTTCCACAAGAAACAAGTGAATGGGTGATCACAAGACACA
E Q N V K S S S P E V V P Q E T T S E N G S S Q D T
N K T . K A L H L K . F H K K Q L V K M G H H K T Q
T K R K K L F T . S S S T R N N . . K W V I T R H K

2890 2900 2910 2920 2930 2940 2950 2960
| | | | | | | |
AAAATATCAAGTACTGAACCAATGAGATTCTGTTGTAGATAGAGCAACAGATAGTATGAATTTAGATCCTGAAAAG
K I S S T E P N E N S V V D R A T D S M N L D P E K
K Y Q V L N Q M R I L L . I E Q Q I V . I . I L K R
N I K Y . T K . E F C C R . S N R . Y E F R S . K G

2970 2980 2990 3000 3010 3020 3030 3040
| | | | | | | |
GTTCATAATGAAAATATGAGTGTATCAAAATACAAATACTGAACCAGATGCATCTTTAAAAGATGATAAGAAGGAAGTT
V H N E N M S D P N T N T E P D A S L K D D K K E V
F I M K I . V I Q I Q I L N O M H L . K M I R R K L
S . . K Y E . S K Y K Y . T R C I F K R . . E G S .

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FIGURE 2B (continued)

3050 3060 3070 3080 3090 3100 3110 3120
| | | | | | | |
GATGATGCCAAAAAGAACTTCAATCTACTGTATCAAGAATTGAATCTAATGAACAGGACGTTCAAAGTACACCACCC
D D A K K E L Q S T V S R I E S N E Q D V Q S T P P
M M P K K N F N L L Y Q E L N L M N R T F K V H H P
C Q K R T S I Y C I K N I T G R S K Y T T R

3130 3140 3150 3160 3170 3180 3190
| | | | | | | |
GAAGATACTCCTACTGTTGAAGGAAAAGTAGGAGATAAAGCAGAAATGTTAACTTCTCCGCATGCCAGACAGATAATTCT
E D T P T V E G K V G D K A E M L T S P H A T D N S
K I L L L L K E K E I K Q K C L L R M R Q I I L
R Y S Y C R K S R R S R N V N F S A C D R F

3200 3210 3220 3230 3240 3250 3260 3270
| | | | | | | |
GAGTCGGAATCAGGTTTAAATCCAACCTGATGACATTAAACAACTGATGGTGTGTTAAAGAACAAGAAATATTAGGG
E S E S G L N P T D D I K T T D G V V K E Q E I L G
S R N Q V I Q L M T L K Q L M V L L K N K K Y G
V G I R F K S N H N N W C C R T R N I R G

3280 3290 3300 3310 3320 3330 3340 3350
| | | | | | | |
GGAGGTGAAAGTGCAACTGAAACATCAAAAAGTAATTTAGAAAACCTAAGGATGTTGAACCTTCTCATGAAATATCT
G G E S A T E T S K S N L E K P K D V E P S H E I S
E V K V Q L K H Q K V I K N L R M L N L L M K Y L
R K C N N I K K F R K T G C T F S N I

3360 3370 3380 3390 3400 3410 3420 3430
| | | | | | | |
GAACCTGTTCTTTCTGGTACAACCTGGTAAAGAAGAATCAGAGTTATTAAAAAGTAAATCGATAGAGACGAAGGGGCAA
E P V L S G T T G K E E S E L L K S K S I E T K G E
N L F F L V Q L V K K N Q S Y K V N R R R R G K
T C S F W Y N W R R I R V I K K I D R D E G G N

FIGURE 2B (continued)

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3770 3780 3790 3800 3810 3820
 | | | | |
 TAATGTTAGAAGATGTTGAAAAGAAACATTGATATCTGAGAATAATGGATTACAT
 N V E D V E K E T L I S E N N G L H
 M . K M L K K K H . Y L R I M D Y I
 . C R R C . K R N I D I . E . W I T .

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FIGURE 2B (continued)

3830 3840 3850 3860 3870 3880 3890 3900
| | | | | | | |
AATGATACACACAGAGGAAATATCAGTGAAGGATTAAATCGATATTCATTGTTAAGAAATGAAGCGGGTAGTACA
N D T H R G N I S E K D L I D I H L L R N E A G S T
M I H T E E I S V K R I . S I F I C . E M K R V V Q
Y T Q R K Y Q . K G F N R Y S F V K K . S G . Y N

3910 3920 3930 3940 3950 3960 3970
| | | | | | | |
ATATTAGATGATTCTAGAAGAAATGGAGAAATGACAGAGGTAGCGAAAGTGATGTTGGAGAATTACAAGAACATAAT
I L D D S R R N G E M T E G S E S D V G E L Q E H N
Y . M I L E E M E K . Q K V A K V M L E N Y K N I I
I R . F . K K W R N D R R . R K . C W R I T R T . F

3980 3990 4000 4010 4020 4030 4040 4050
| | | | | | | |
TTTAGCACACAACAAAAGATGAAAAGATTTTGACCAAATTCGAGCGATAGAGAAAAGAAGAAATTCAAAATTA
F S T Q Q K D E K D F D Q I A S D R E K E E I Q K I
L A H N K K M K K I L T K L R A I E K K K K F K N Y
H T T K R . K R F . P N C E R . R K R R N S K I T

4060 4070 4080 4090 4100 4110 4120 4130
| | | | | | | |
CTTAATATAGGACATGAAGAGGATGAAGATGTATTAAAAATGGATAGAACAGAGGATAGTATGAGTGATGGAGTTAAT
L N I G H E E D E D V L K M D R T E D S M S D G V N
L I . D M K R M K M Y . K W I E Q R I V . V M E I I
Y R T . R G . R C I K N G . N R G . Y E . W S . .

4140 4150 4160 4170 4180 4190 4200 4210
| | | | | | | |
AGTCATTGTATTATAATAATCTATCAAGTGAAGAAAAATGGAACAATATAATAATAGAGATGCTTCTAAAGATAGA
S H L Y Y N N L S S E E K M E Q Y N N R D A S K D R
V I C I I I I Y Q V K K K W N N I I I E M L L K I E
S F V L . . S I K . R K N G T I . . . R C F . R . R

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FIGURE 2B (continued)

4220 4230 4240 4250 4260 4270 4280 4290
GAAGAAATATTGAATAGGTCAAACACAAATACATGTTCTAATGAACATTCATTAAATATTGTCAATATATGGAAAGA
E E I L N R S N T N T C S N E H S L K Y C O Y M E R
K K Y . I G Q T Q I H V L M N I H . N I V N I W K E
R N I E . V K H K Y M F . . T F I K I L S I Y G K K

4300 4310 4320 4330 4340 4350 4360
AATAAGGATTTATTAGAACATGTTCTGAAGACAAAAGGTTACATTTATGTTGTGAATATCAGATTATTGTTTAAAA
N K D L L E T C S E D K R L H L C C E I S D Y C L K
I R I Y . K H V L K T K G Y I Y V V K Y Q I I V . N
. G F I R N M F . R Q K V T F M L . N I R L L F K I

4370 4380 4390 4400 4410 4420 4430 4440
TTTTCAATCCTAAATCGATAGAACTTTGATTGTACACAAAAGAATTGATGACCCTACATATAATTGTTTTAGA
F F N P K S I E Y F D C T Q K E F D D P T Y N C F R
F S I L N R . N T L I V H K K N L M T L H I I V L E
F Q S . I D R I L . L Y T K R I . . P Y I . L F . K

4450 4460 4470 4480 4490 4500 4510 4520
AAACAAGATTTACAAGTATGTCATGTTATAAAATTAAAAACAATATACATTAAATATGTTAATAAAAAAATAATATA
K Q R F T S M S C Y K I K N N I H . Y V N K K N N I
N K D L Q V C H V I K L K T I Y I N M L I K K I I Y
T K I Y K Y V M L . N . K Q Y T L I C . . K K . Y I

4530 4540 4550 4560 4570 4580 4590 4600
TTTTTTCTCTTTTCTTTTCTTTTAAATAGGTATGCATTATATTGCCGGGGTGGTATAATAGCCCTTTTATTGTTTA
F F S L F L F F . . V C I I L P G V V . . P F Y C L
F F L F F F F F N R Y A L Y C R G W Y N S P F I V Y
F F S F S F F L I G M H Y I A G G G I I A L L L F I

FIGURE 2B (continued)

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4610      4620      4630      4640      4650      4660      4670      4680
|         |         |         |         |         |         |         |
TTTTAGGTTT CAGCCAGCTATAGGAAGAAATTTGTAAGAAAAAAGCATGAAGAAATATAAACAAAAATATAAAATATATG
F . V Q P A I G R I C K K K R M K K Y K Q K Y K Y M
F R F S Q L . E E F V R K K G . R N I N K N I N I C
L G S A S Y R K N L . E K K D E E I . T K I . I Y A

4690      4700      4710      4720      4730      4740      4750
|         |         |         |         |         |         |
CATATATATTTAAGTATTATAAGAACATATATATAAATRAATATGTATATTTTTATTATTATTATTATAGGGATGATGA
H I Y L S I I . T Y I . I N M Y I F I L L L . G . .
I Y I . V L . E H I Y K . I C I F L F Y Y Y R D D E
Y I F K Y Y K N I Y I N K Y V Y F Y F I I I G M M K

4760      4770      4780      4790      4800      4810      4820      4830
|         |         |         |         |         |         |         |
AAAAGGATTCTACGATTCTAATTTAAATGATTCTGCTTTTGAATATAATAATAATAAATATAATAAAATTACCTTATAT
K R I L R F . F K . F C F . I . . . . I . . I T L Y
K G F Y D S N L N D S A F E Y N N N K Y N K L P Y M
K D S T I L I . M I L L L N I I I I N I I N Y L I C

4840      4850      4860      4870      4880      4890      4900      4910
|         |         |         |         |         |         |         |
GTGTAAGGAAAAAACTAAAAAACAAAAAATAATATATATATATATATATTTACGGATGCATTTCACACA
V . G K N . K T K K K K N I Y I Y I Y I Y G C I S T
C K E K T K K Q K K K K I Y I Y I Y I F T D A F P H
V R K K L K N K K K K K Y I Y I Y I Y L R M H F H I

4920      4930      4940      4950      4960      4970      4980      4990
|         |         |         |         |         |         |         |
TTCTTATTATTCTTATTCTTATAATTTTTATTATTATTATTATTATTTTTTTTTCGTAGTTGATCAACAAATAAA
F L L F L I L I I F I I Y L F I F F F R S . S T N K
S Y Y F L F L . F L L F I Y L F F F F V V D O O I N
P I I S Y S Y N F Y Y L F I Y F F F S . L I N K . M

```

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FIGURE 2B (continued)

5000	5010	5020	5030	5040	5050
TG TAGTAAATTCTGATTATATTCGGAGGGTATTTATGATGACACAACGACATTTTAA					
C S K F . F F G G Y L . .					
<u>V V N S D L Y S E G I Y D D T T T F .</u>					
. . I L I Y I R R V F M M					

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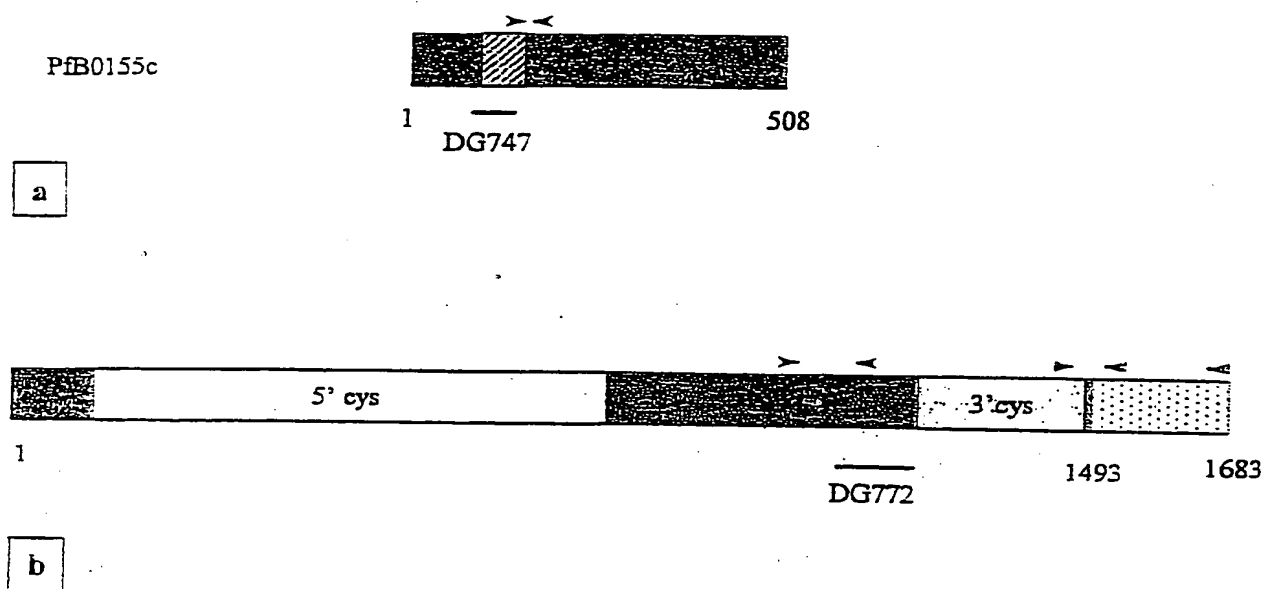


Figure 3.1

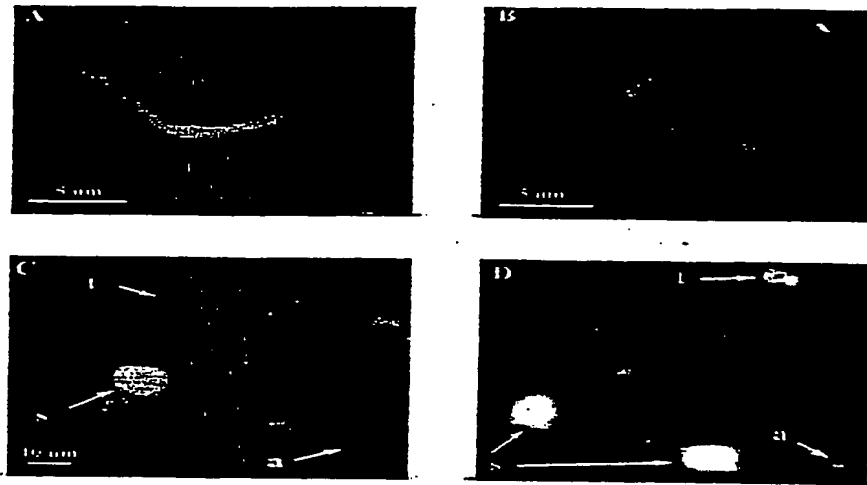


Figure 3.2

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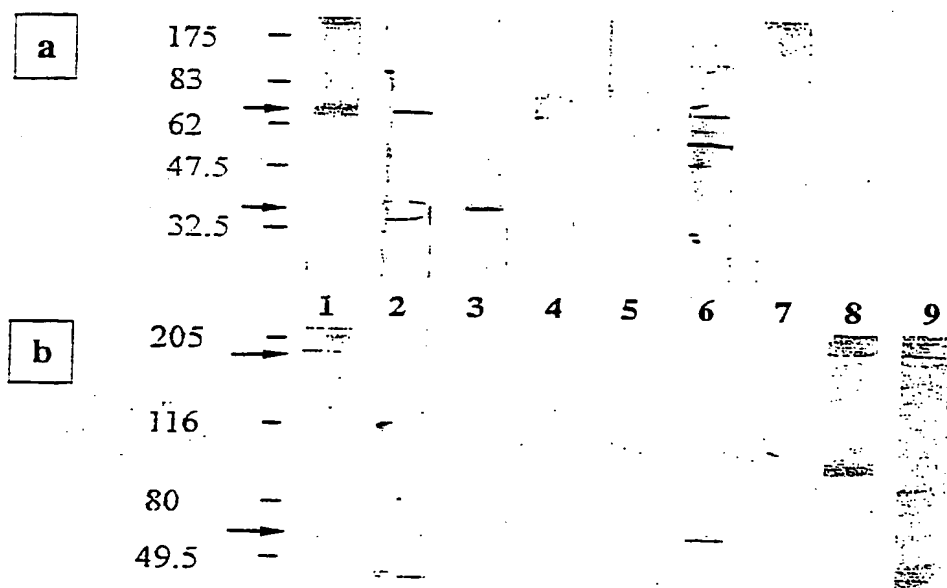


Figure 3.3

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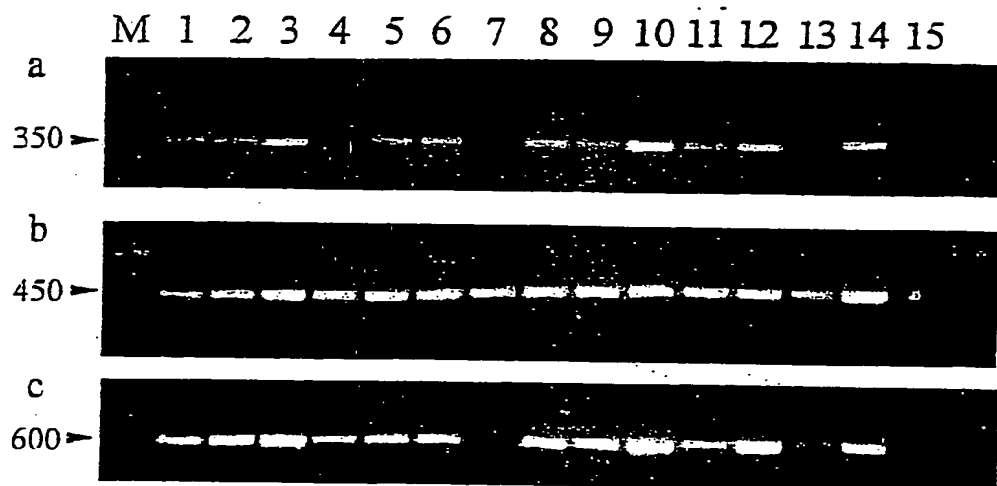


Figure 3.4

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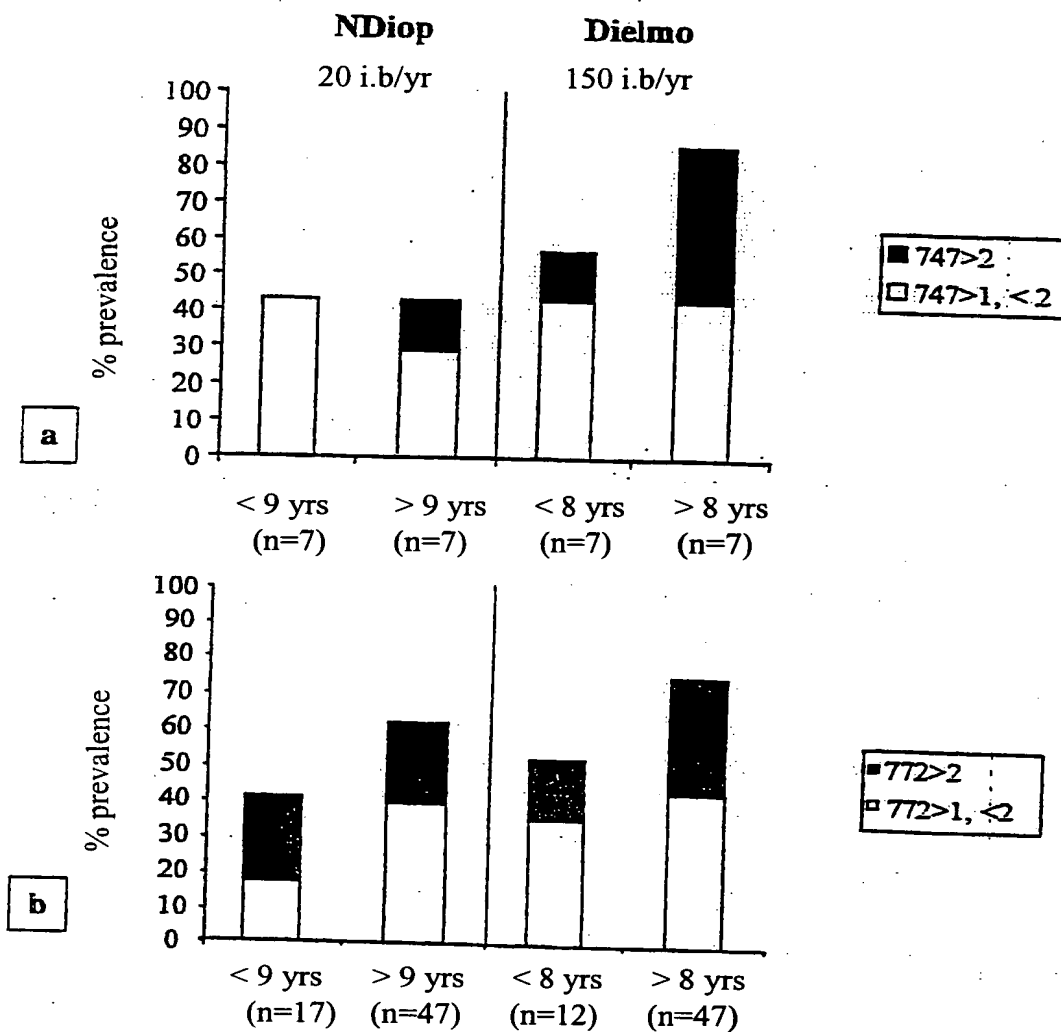


Figure 3.5

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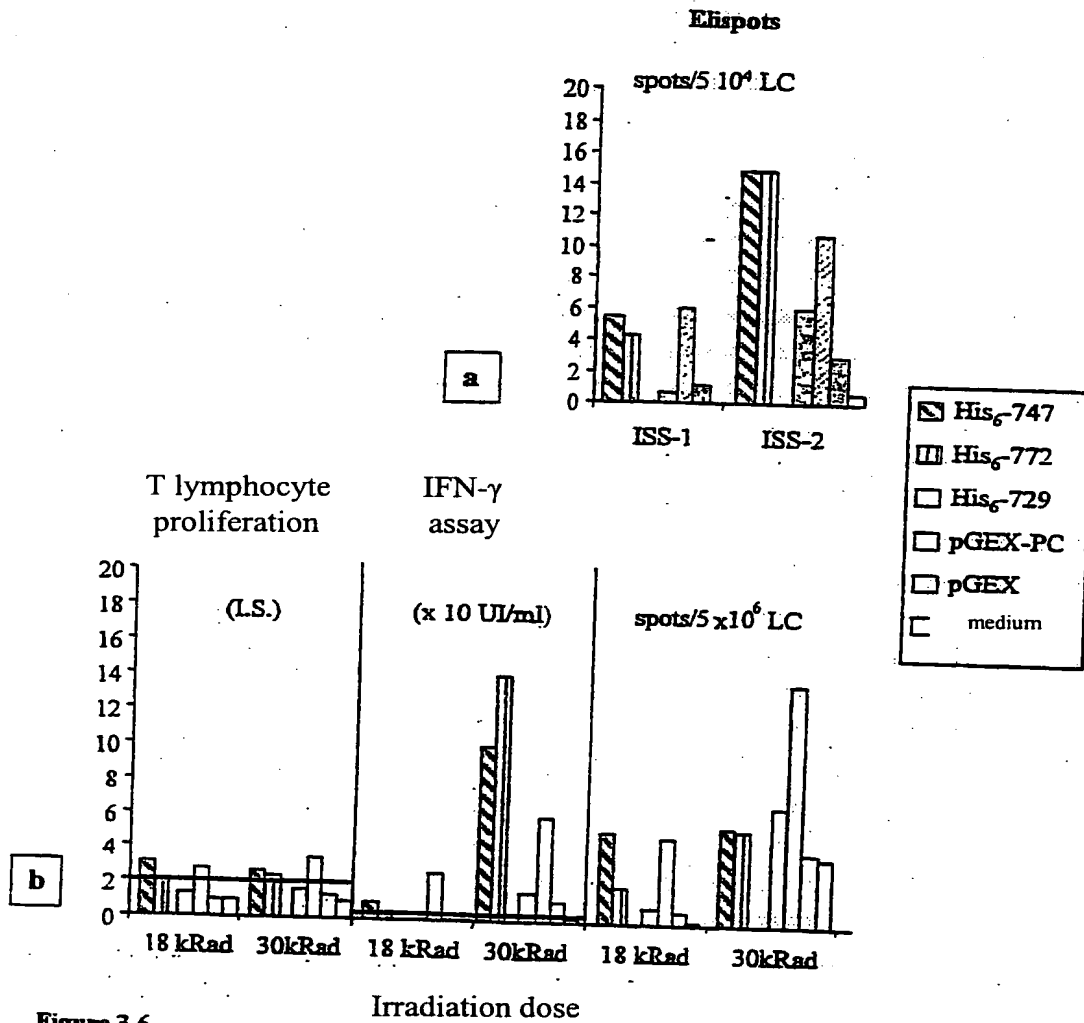


Figure 3.6

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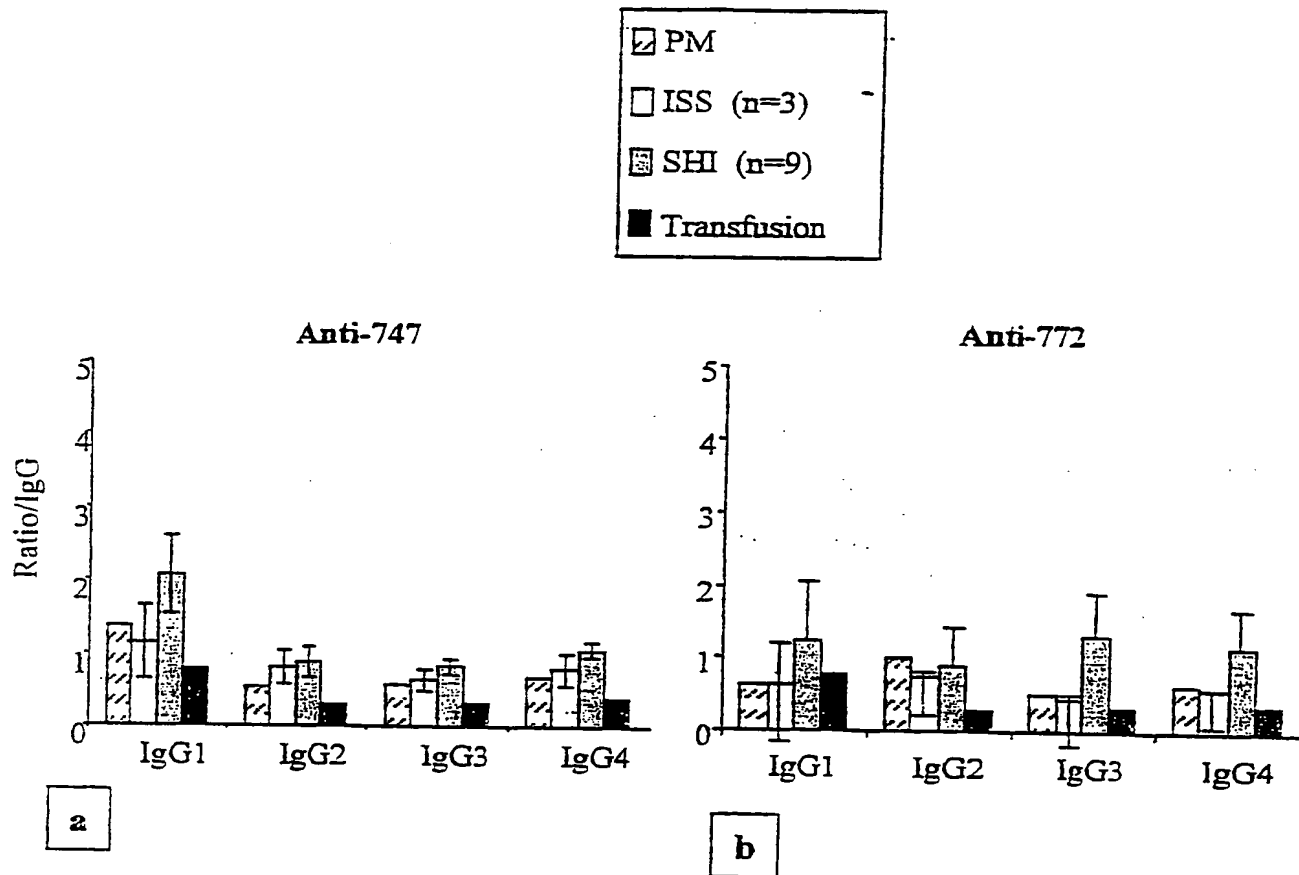


Figure 3.7

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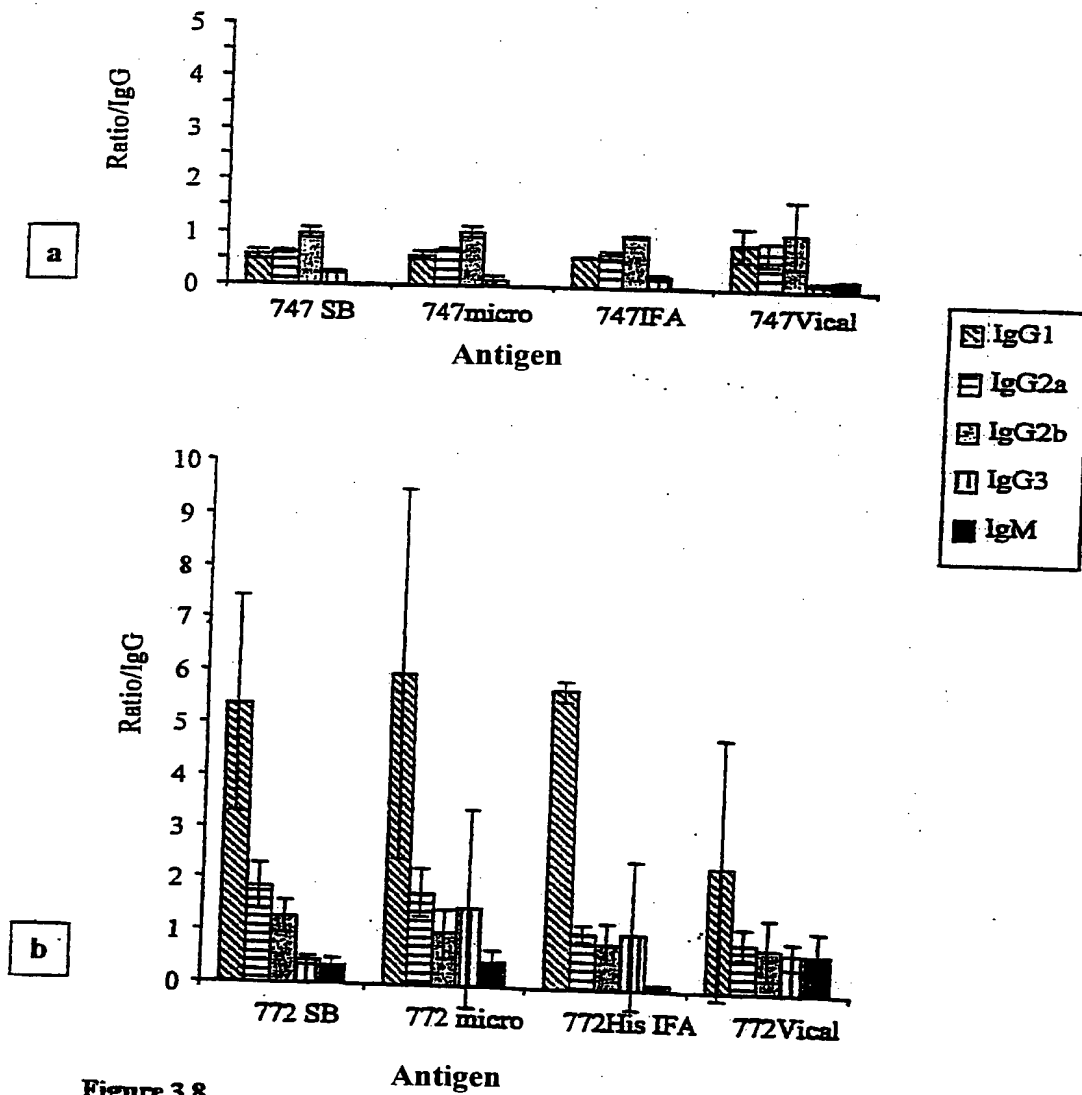


Figure 3.8